Claim 1 (previously presented): A switch coupled between a plurality of host units and a device for routing frame information therebetween and comprising:

a. a first serial advanced technology attachment (ATA) port including a first host task file responsive to a non-data frame information structure (FIS) from [[and coupled to]] a first host unit;

b. a second serial ATA port including a second host task file, responsive to a non-data FIS from [[and coupled to]] a second host unit;

c. a third serial ATA port, responsive to a non-data FIS[[, and coupled to]] from a device; and

d. an arbitration and control circuit for selecting one of the first host or second host units to concurrently access the device, through the switch, by accepting non-data FIS, from either of the first or second host units, at any given time, including when the device is not in an idle state and whenever either one of the first or second host units sends non-data FIS to the device and further wherein the non-data FIS of the first and second host units and the device identify which one of the first or second host units is an origin and/or destination host so that routing of non-data FIS is transparent to the switch thereby reducing the complexity of the design of the switch rendering its manufacturing less expensive.

Claim 2 (original): A switch as recited in claim 1 wherein said device is a storage unit.

Claim 3 (original): A switch as recited in claim 1 wherein said switch is employed in an enterprise system.

Claim 4 (original): A switch as recited in claim 1 wherein said arbitration and control circuit causes concurrent access of the device by the first and second host units.

Claim 5 (previously presented): A switch as recited in claim 1 wherein a bit is used to indicate which host is the origin or destination of the non-data FIS.

Claim 6 (original): A switch as recited in claim 1 wherein said first, second and third ports are layer 2 ports.

Claim 7 (original): A switch as recited in claim 1 wherein the switch provides for 'route aware' routing.

Claim 8 (previously presented): A switch as recited in claim 1 wherein the switch further includes a dual ported first-in-first-out (FIFO).

Claim 9 (currently amended): A switch comprising:

a. a first serial advanced technology attachment (ATA) port including a first host task file for connection to a first host unit, said first ATA port responsive to a non-data frame information structure (FIS) [and for connection to a] from the first host unit;

b. a second serial ATA port including a second host task file for connection to a second host unit responsive to a non-data FIS[[, for connection to a]] from the second host unit;

c. a third serial ATA port, responsive to a non-data FIS, for connection to a device, the switch for routing frame information between the first and second host units and the device; and

d. an arbitration and control circuit for selecting either the first host unit or the second host unit to concurrently access the device, through the switch, by accepting non-data FIS, from either of the first or second host units, at any given time, including when the device is not in an idle state, when either one of the first or second host units sends non-data FIS to the device,

wherein while one of the first or second host units is coupled to the device, through the switch, the other one of the first or second host units sends non-data FIS to the switch for routing to the device and further wherein the non-data FIS of the first and second host units and the device identify which one of the first or second host units is an origin and/or destination host so that routing of non-data FIS is transparent to the switch thereby reducing the complexity of the design of the switch rendering its manufacturing less expensive.

Claim 10 (previously presented): A switch as recited in claim 9 wherein the switch provides for 'route aware' routing.

Claim 11 (original): A switch as recited in claim 9 wherein said device is a storage unit.

Claim 12 (original): A switch as recited in claim 9 wherein said switch is employed in an enterprise system.

Claim 13 (original): A switch as recited in claim [1] 9 wherein said arbitration and control causes concurrent access of the device by the first and second host units.

Claim 14 (currently amended): A switch that is connectable to a first host unit, a second host unit and a device via serial advanced technology attachment (ATA) links, for routing frame information between the first and second host units and the device, said switch comprising:

a. a first serial ATA port, including a first host task file for connection to a first host unit, said first SATA port responsive to a non-data frame information structure (FIS)[[, for connection to a]] from the first host unit;

b. a second serial ATA port, including a second host task file for connection to a second host unit, responsive to a non-data FIS[[, for connection to a]] from the second host unit;

c. a third serial ATA port, responsive to a non-data FIS, for connection to a device;

d. an arbitration and control circuit for selecting one of the first or second host units to concurrently access the device through the switch, by accepting non-data FIS, from either of the first or second host units, at any given time, including when the device is not in an idle state, when either the first or second host units sends non-data FIS to the device,

wherein while one of the first or second host units is coupled to the device, the other one of to the first or second host units sends non-data FIS to the switch for routing to the device and further wherein the non-data FIS of the first and second host units and the device identify which one of the first or second host units is an origin and/or

destination host so that routing of non-data FIS is transparent to the switch thereby reducing the complexity of the design of the switch rendering its manufacturing less expensive.

Claim 15 (original): A switch as recited in claim 14 wherein the switch is a serial ATA switch.

Claim 16 (original): A switch as recited in claim 14 wherein said device is a storage unit.

Claim 17 (original): A switch as recited in claim 14 wherein said switch is employed in an enterprise system.

Claim 18 (original): A switch as recited in claim 14 wherein said arbitration and control circuit causes concurrent access of the device by the first and second host units.

Claim 19 (currently amended): A method for communication between multiple host units and a device, through a serial advanced technology attachment (ATA) switch coupled to the multiple host units and the device using serial ATA links routing frame information therebetween comprising:

a. receiving a non-data frame information structure (FIS) through a first serial ATA port, from a first host unit;
b. receiving a non-data FIS, through a second serial ATA port, from a second host unit;
c. receiving a non-data FIS through a third serial ATA port;
d. arbitrating between the first and second host units and the device;
e. selecting one of the first or second host units for coupling to the device through the switch when either of the first or second host units sends commands for execution by the device;
f. coupling the device to the selected one of the first or second host units; and

g. while the selected one of the first or second host units is coupled to the device, the other one of the first or second host units sending non-data FIS to the switch for routing to the device

during the sending step g., the non-data FIS of the first and second host units and the device identifying which one of the first or second host units is an origin and/or destination host so that routing of non-data FIS is transparent to the switch thereby reducing the complexity of the design of the switch rendering its manufacturing less expensive.

Claim 20 (previously amended): A method for communication, as recited in claim 19, further including the steps of transmitting a non-data FIS through the first serial ATA port, non-data FIS through the second serial ATA port, and transmitting a non-data FIS through the third serial ATA port.